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Eastern District of Pennsylvania
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Response to Second Set of Lost Profits Reports

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1. Both Dr. Fox-Penner and Pappas and Company (Pappas) have prepared second reports that present dramatically different estimates of alleged damages and lost profits. I have been asked by counsel for Constellation NewEnergy to review Powerweb's (PW) second reports and present my findings in a supplemental report.

2. The first versions of the expert reports prepared by Dr. Fox-Penner and Pappas developed estimates of lost profits from load curtailment, load management and energy management. Surprisingly, the second reports show dramatic increases in lost profits stemming from the energy management services. These services now account for 80% of the claimed damages. Previously they represented only 28% of the claimed damages.¹ In particular, assumptions that cannot be verified greatly increased Pappas' claimed energy management lost profits based on 11 of the 13 alleged lost contracts. Specifically, Pappas states that in the calculation of damages for the alleged 13 lost contracts, he originally used New Energy's penetration rates and expected number of energy management customers. In the second report, Pappas "shifted this calculation to mirror Powerweb's experience under its current contracts." This so-called shift, based on numbers not shown in the second report and which cannot be verified as a result, end up increasing the total damages calculated by Pappas for "Lost Contracts: Energy Management Services" from \$9.1 million (Source: Table on last page from Pappas First Report, line Lost Contracts Energy Management) to \$62.6 million (Source: Table on last page of Pappas Second Report entitled Lost Contracts: Energy Management Services). Each number is for three years of energy management services for these contracts. The very fact that a "shift" in assumptions, without providing the underlying data, can cause a change of \$54 million in alleged lost profits over just a three-year period demonstrates the speculation inherent in his numbers.

3. My review of the Pappas second report shows that the magnitude of the claims for lost profits from energy management are based on assumptions that have no basis in fact, and are not consistent with any realistic assessment of the energy management services industry during the time period under consideration. This is based on my personal experience working in this industry, as well as cross-checking the "state of the industry" with colleagues who have direct experience in this industry segment. In a highly competitive industry, with extremely diverse customers and energy management needs,² PW's projected lost profits of \$62 million over three years is not believable. Even PW's own economist, Dr. Fox-Penner concedes that PW had competitors

¹ Calculations based on Table 12 in Dr. Fox-Penner's April, 2004 expert report and the revised numbers in Revised Table 12 in Dr. Fox-Penner's Supplement dated May 21, 2004 (last page including NewEnergy Representations).

² To illustrate the depth of the industry, a report prepared by E-Source as part of its on-going Energy Information and Communication Service shows that Powerweb was only 1 of 44 entities interviewed that provided metered data analysis services (MDAS), the segment that provides energy management services (Report #EIC-14, December, 2001). Many of these companies had and have technology with equivalent functionality, if not greater functionality, than did PW's technology for providing energy management services. No company in this segment is known to be highly profitable. The author of the report and the director of E-Sources Energy Information and Communications Service at the time of the report, Ms. Lynn Fryer was contacted and expressed similar views. E-Source is viewed as one of, if not the best, source of industry information on this sector. This is confirmed by its list of utility and industry subscribers. In addition, I contacted the current director of the Energy Information and Communications Service, Ms. Kathleen Burns, who replaced Ms. Fryer to discuss this industry segment. I learned that prior to joining E-Source (Now Platts via acquisition) Ms. Burns worked for two competitors of Powerweb – Engage Networks and Silicon Energy. Her experience indicated that no firm was making anywhere near those profits for energy management services. In a telephone interview, Ms. Burns provided the names of over 20 firms that she believed were competitors to Powerweb in at least one functional area. Also, Ms. Burn's comment was that all firms were struggling financially in this segment. The relevant bios for these two industry sources are provided in Attachment A.

beyond Silicon Energy and RETX,³ yet there is no assessment by PW regarding how this competition would have impacted alleged lost profits.

4. Pappas states, "We assumed a penetration rate for energy management customers of 50% of the top power consumers ... that would purchase this product" (p. 2, First Report).. Such a penetration rate is completely speculative. PW would have been competing against numerous services companies for these contracts. As was clearly stated by Mr. Metz in his oral deposition, large energy using customers often try to separate out services and pick the best in class service from the available vendors.⁴ This statement is consistent with findings in an E-Source report where the authors state that bundled offerings consisting of service, platform, and communications functions is a risky proposition for customers since few offerings will be "best of breed" in all categories.⁵ Industry experience has shown that, even among the largest customers, some may want real-time data but others can successfully manage their energy use with hourly load data available from the previous day at a much lower cost.⁶

5. The Pappas second report (item c.) uses the "EIM Study" conducted for Baltimore Gas and Electric to predict the number of NewEnergy customers that might become energy management customers. This study is used despite the criticisms made of its use by Mr. Raymond Dovell's (Expert Report; May 3, 2004). The EIM report includes a number of caveats; and, in its conclusions, it specifically states that the results are tentative and that "before a well-informed "go/no-go decision on EIM can be made, the study authors recommend that BG&E conduct a cost-benefit analysis, feasibility study, qualitative research, and interviews with pilot program participants. In a recent telephone interview, BG&E confirmed that it never intended to use the "EIM study" as the basis for a financial forecast.⁷ BG&E stated that the study's only purpose was to provide information to help make a decision on whether to move forward from the pilot program to a full roll-out of the EIM services.⁸ Finally, in addition to various statistical biases common to such studies, the conjoint study method used in the "EIM Study" is also subject to "hypothetical bias."⁹

³ Dr. Fox-Penner states in his deposition that "I would have to say that I have a general understanding that similar systems, that is, systems that had some degree of similarity, were offered by companies in addition to Powerweb in 1999." (page 188, lines 1-4). Further, in response to the question: Are there any other competitors of Powerweb's other than Silicon Energy and RETX? Dr. Fox-Penner states that "I believe there are other firms. I can't name them, but I believe that there are other firms that at least sell systems that have some substitutability with Powerweb." (Page 224, Lines 4-7).

⁴ Specifically, after considering the New Energy / PW technology solution, Mr. Metz states: "I never really considered moving forward with NewEnergy. To me, and the way we do things in sourcing, for example, is we try to identify -- you know, we try to disaggregate proposals and identify who would be the best provider of a specific service for us, at least that's how I do things in my energy area." (Oral Deposition, p. 98 line 2-6).

⁵ "The Distributed Utility," Strategic Issues Paper, E-Source, June 1997, p. 24.

⁶ In a telephone interview with Ruth Kiselewich, BG&E's representative, she discussed the price sensitivity of BG&E's customers. None of BG&E customers that participated in the pilot for free were willing to pay for the Omni-Link system when the product was rolled out in 2002. Based on the high cost of the Omni-Link technology, BG&E had to charge its customers \$200 dollars a month for the Omni-Link system. At this price, only 15 of BG&E's approximately 400 key accounts were willing to participate in the roll out. When PW's product was replaced with a lower-tech, lower-cost information system from Itron, participation jumped by 500%. (Source: Phone conversation June 25, 2004).

⁷ In the telephone interview with Ruth Kiselewich, BG&E's representative, she stated that the only purpose of the conjoint study performed by National Analysts (referred to as the "EIM Study" by Pappas) was to help make the decision to proceed with the roll-out of the program and it would not have been relied upon for a financial forecast.

⁸ Ibid.

⁹ The literature on hypothetical bias is extensive. Two examples of this literature include: Little, J. and R. Berrens, "Explaining Disparities between Actual and hypothetical Stated Values," *Economics Bulletin*, Vol. #, No. 6, 2004, p. 1-13; and Harrison, G. and E. Rutstrom, "Experimental Evidence on the Existence of Hypothetical Bias in Value Elicitation Methods," (version reviewed March 20, 1999) forthcoming in C.R. Plott and V.L. Smith (eds.), *Handbook of Experimental Economics Results* (New York: Elsevier Press, 2004. For a definition of the issue, Little and Barron state that "Hypothetical bias can be defined as the disparity between hypothetical statements and real values (or what an individual might actually pay for the provision of the good)." p.1.

6. None of the four lost profits reports prepared – two by Dr. Fox-Penner and two by Pappas – contain an industry or competitor analysis of this segment. PW lost profits reports are not supported by relevant industry analyses. Though Dr. Fox-Penner recognized the existence of competition in PW's industry, he has not analyzed the implications of this competition. A reliable lost profits report needs to be based on an industry analysis of potential competitors, an assessment of whether PW had a competitive advantage, how long the advantage would have lasted (i.e., you can't just assume it would have lasted for 10 years before the rest of the industry would have caught up), current profits by firms working in this market segment, and the demand for PW's bundled services.

7. Pappas assumes that PW would have won 13 contracts that were awarded to either Silicon Energy or RETX.¹⁰ This assumption is without any basis. There is no indication that the utilities awarding these contracts would not have been as likely to award the contract to a company other than PW, even if Silicon Energy and RETX were removed from the bidding. This is acknowledged by Dr. Fox-Penner, PW's damages expert, where he states that even if Silicon Energy and RETX didn't exist, other competitors could have won those contracts (Oral Deposition, page 231). Energy information and curtailment services was, and is, a highly competitive industry. Rochester Gas & Electric (RG&E) designed a load curtailment program and reviewed the offerings of a number of providers of these services in a report dated December 31, 2000. PW was not considered by RG&E as a potential vendor. Vendors considered were EnerTouch, Plurimi, Inc.'s Virtual Peaker software, Customer Energy Exchange by Silicon Energy, Curtailment Manager offered by Ameren, and Ebidenergy.com. (See page 8 of RG&E, December 31, 2000 for services offered and prices). Simply stated, the assumption that PW would have won all 13 contracts -- even if Silicon Energy and RETX were removed from the field of competitors, is not reasonable.

8. The profit margins assumed by Pappas are unreasonable. For some services, expenses are assumed to be minimal, and for other services there are no expenses at all (e.g., all Energy Management Customers). For Energy Management customers, lost profits are simply the total fees charged,¹¹ i.e., there are no expenses or costs associated with selling energy management services to customers. This means no marketing costs, no additional software costs, no additional infrastructure or support costs, and no tailoring of any of the software engines to customer-specific circumstances for energy management (e.g., the savings or rates engines). This assumption of all profit and no cost is not supported by expert analysis and does not reflect reality. Communications with industry experts and my work at utilities that employ notification/curtailment vendors and energy management services providers indicate that a profit margin of around 10% is reasonable (20% would be high) on these services once costs are taken into account.

9. Where Pappas does develop some costs of providing the services, the gross margins are so large as to be unsustainable even if they could be sold at all to customers. For example, the Table on page 13 of Pappas' second report (bottom right hand corner) shows "Total Income Years 1 to 10" of \$13,546,050 and expenses of \$1,159,263 for profits used in the report of \$12,386,787. This is a profit margin of 91%. Combined with a profit of 100% on \$93,791,000 on Energy Management (See first table in Pappas second report, sum of second and last lines both labeled Energy Management), provides for a lucrative business, but one with impossible economics.

10. Pappas claims on the first table shown in the second report that total lost profits over a three-year span -- 2002, 2003 and 2004 -- sum up to \$78,618,000 in lost profits for load management and energy management, but his report excludes any revenues from load curtailment. Assuming a profit margin of 10% on both load management and energy management services, this would translate into \$786.2 million in total revenue. This revenue number is so far in excess of the revenues of software-based energy services companies in this period

¹⁰ This is found in the Supplemental Lost Profits Report, page 1, item g. In addition, an exhibit entitled "Powerweb, Lost Contracts, Energy Mgmt Services" lists the utilities that awarded these contracts to either Silicon Energy or RETX.

¹¹ The last exhibit in Pappas and Company's Supplemental Lost Profits Report, May 27, 2004 shows the revenues from the utilities that awarded the 13 contracts. There are no cost categories associated with the provision of these services. As a result, all revenues are treated as lost profits.

that it lacks credibility. As a benchmark, the publicly traded Itron, Inc., which offers load and energy management software as well as meters and its MV-90 communications software, had revenues for three years of \$827,362,000 (2001, 2002, and 2003) and net income of \$32,611,000 across those same three years for a profit margin slightly under 4%. Itron has 1,500 employees, automatic collection and delivery of meter usage data from over 33 million meters in North America, and meter reading systems used by over 2,000 utilities worldwide. It would be pretty hard to ramp up the revenues of a small start-up company like PW¹² to almost equal Itron in revenues with its 1,500 employees, and to be able to greatly exceed Itron in profits over a three-year period. Itron offers many of the same capabilities as does PW and is a stable company with a track record. Reuters describes Itron as a technology provider and source of knowledge for collecting, analyzing and applying critical data about electric, gas and water usage to the global energy and water industries. The Company provides solutions for meter data collection, energy information management, demand side management and response, as well as load forecasting and analysis consulting services and software, transmission and distribution (T&D) system design and optimization, Web-based workforce automation, commercial and industrial (C&I) customer care and residential energy management (business summary and financials from Reuters through Yahoo.com).

11. Powerweb's misunderstanding of its position in the energy services industry is exemplified by Mr. Lothar Budike's Declaration of June 15, 2004. For example, Mr. Budike declares that in October 1999, "the industry was unfamiliar with the concept of selling retail energy and capacity into a deregulated market." (Budike Decl. Para. 7). The electricity market in Georgia has been deregulated for new customers for well over a decade. Electricity providers in Georgia have developed many variants of real-time pricing ranging from Georgia Power's two-part RTP tariff to the application of Apogee Interactive's On-Line Demand Exchange all with the goal of competing for customers in this competitive market. Curtailment products have been in place in Georgia for deregulated customers for over a decade. The Apogee's demand exchange which actually functioned in the summer of 1999 was presented at the meetings of the Peak Load Management Alliance in October of 1999. I attended this event. In California, demand curtailment options were being offered to large customers in retail markets. In fact, this was being done by NewEnergy through demand schedulers and the California Power Exchange. In any large industry, some people may not be aware of one business aspect, but a well-informed person interested in load curtailments would certainly have known of the work being done by the members of the PLMA, the conferences being sponsored by E-Source, and the other public venues where the role of load curtailment and energy management in a deregulated market place was being discussed. The 20+ corporate entities that comprised the membership of the Peak Load Management Alliance (PLMA) focused on this topic and developed working concepts for making these transactions happen.¹³ I served as the initial Vice Chair of the PLMA and helped organize the meetings. Most parties in the NY ISO and PJM ISO knew that as large customers moved to retail choice, many of them would have had interruptible/curtailable contracts with their previous providers, and that they would be interested in similar offers from retail providers. ISOs were thinking about this, retail providers were discussing this in meetings, and customers were discussing how to make this work. In fact, it happened pretty quickly. Georgia had well publicized curtailment strategies and innovative pricing through the 1990s and, in 2000, the CA ISO, the NY ISO and PJM ISO adopted curtailment programs encompassing retail players. The suggestion that PW brought a novel or proprietary idea to the industry via the "concept of selling retail energy and capacity into a deregulated market" is wrong.

12. Despite PW's claim that it has always been cautious to maintain the confidentiality of the Omni-Link system, the facts suggest otherwise. Martin Anderson of PW presented the Omni-Link system at the October 2000 meetings of the PLMA, which I helped organize. His presentation included a real-time dispatch

¹² As of June 2001, PW had 10 full-time employees and 7 part-time employees. NAV00009.

¹³ A pre-conference workshop offered by Joel Gilbert of the Peak Load Management Alliance in 1999 examined the changing structure of the electricity market and how entities could play in that market. The impact of deregulation was discussed and market role for retailers and competitive power marketers with load curtailment products was presented. Trading was also discussed with the use of a broker to structure calls, puts and collars as well as trading hedge approaches.

demonstration, and a portrayal of the platform with all the engines, including: Plant locator, Weather, Energy Alarms, Savings Strategies, Rate Analysis, Energy Usage Charts, Real Time Usage, Energy Production, Energy Dispatch, Energy Transaction, Real Time Pricing, Billing Questions, E-Commerce, and Energy News. I did not see anything in the marketing materials supplied to NewEnergy that described the functionality of the Omni-Link software in any greater detail. Mr. Anderson's presentation has been available for download from the PLMA website since it was presented in 2000 (www.peaklma.com). Also, Mr. Andrew Bakey of PW presented the Omni-Link technology in even greater detail at the March 22, 2001 meetings of the NY ISO. In this presentation, Mr. Bakey followed an outline which contained:

- 1) Case Study – Aventis Pharmaceutical
- 2) Hardware Setup (with pictures showing routing and connections)
- 3) Software Design (real-time components)
- 4) Distributed Generation Platform
- 5) Notification Methods (trigger prices, monitoring of PJM prices, automatic notification)
- 6) Settlement Services (settlement software)
- 7) On-Line demonstration.

According to Mr. Budike's declaration, this would allow a "competent programmer" to reverse engineer Omni-Link based on publicly available presentations. (Budike Decl., Para. 8). The Omni-Link presentation was hardly unique. Through the PLMA and my work in the industry, I have reviewed similar presentations from Honeywell, Silicon Energy (available from PLMA website for Spring 2000 conference), Stonewater Software (also available at the PLMA website), and many others. A presentation by a Cooperative utility in Georgia that also competes for retail customers against Georgia Power Company presented an internet-based load curtailment platform and specifically stated that a competitive power marketer or even another customer might take the power as a counter-party (see Best Little Power House in Georgia, presented by Stanley Sitzler). In addition, similar presentations were being made at E-Source member meetings. Load curtailment for retail customers by retail providers was not a new concept; it did not necessitate new functionality; and it was widely discussed in public forums. Thus, there were several publicly available sources from which a "competent programmer" could have reversed engineered the Omni-Link System.

There were many people working to advance curtailment strategies, load management and energy management in the changing electricity markets other than PW. If PW had not existed, it is my opinion that the technology being developed and used in the industry today would not be any different. It is also my opinion that absent any of the New Energy disclosures alleged by PW, this industry would be similarly unaffected.

-- Attachment A --

Bios of Ms. Fryer and Ms. Burns cited in Footnote 2.

Lynn Fryer served as the director of the E SOURCE *Energy Information and Communication Service*. In this role, she led E SOURCE's research in trends and offerings in the energy information service arena, ranging from billing services to remote monitoring and control services, as well as the metering and communications systems that enable them. Lynn has been working in the fields of electric utilities and building energy efficiency for more than 15 years. Lynn has held senior analyst positions with New England Power Service Co. and Boston Edison Co., where she was responsible for design and evaluation of residential and commercial demand-side management programs. Lynn was also an energy engineer at the Massachusetts Executive Office of Energy Resources, where she was responsible for revisions to the energy conservation section of the Massachusetts Building Code. Lynn holds an MS in building energy engineering from the University of Colorado, as well as a BS in engineering and a BA in art history from Swarthmore College.

Kathleen Burns, current Director, E Source *Energy Information and Communication Service* has expertise with Web-based enterprise energy management and other energy information systems (EIS), meter data collection, software technologies for managing demand-response programs, and Web presentment of bills for energy usage. Formerly an independent consultant advising clients on energy information technologies, she has published numerous articles on EIS, their uses, and their deployment issues. Kathleen previously served as a technical sales consultant at Silicon Energy and as director of national distribution at Engage Networks; both companies are EIS providers. Earlier in her career, Kathleen was a lobbyist for Wisconsin's electric cooperatives in the state legislature. She holds a BS in political science with highest honors from University of Wisconsin.